

Detailed Discussion

The issues raised by the Office are addressed below.

1. Request for Information

The publication date of the reference U on the form PTO-892, entitled “Application of Remote-Field Eddy Current Testing to Inspection of Unpiggable Pipelines” to Merritt was after it was forwarded by email from Southwest Research Institute on May 16, 2003. The publication date of the reference V on the form PTO-892, entitled “Application of Remote-Field Eddy Current (RFEC) Testing to Inspection of Unpiggable Pipelines” to Burkhardt was after it was forwarded as a first status report on May 14, 2003. It should be noted that these publications were made after contract number DTRS-56-02-T-0001 was awarded to Southwest Research Institute in September 2002, and after the filing of Provisional Application No. 60/320,125.

Copies of relevant documents can be furnished if required.

2. Specification - Abstract

The abstract has been amended.

3. Specification – Title

Applicants suggest the following alternative as a suitable title of the invention:
SYSTEM AND METHOD USING A COLLAPSABLE COIL FOR INSPECTION OF
PIPELINES HAVING INTERNAL RESTRICTIONS.

4. Claim Objections

Applicants have amended the claims to provide antecedent basis where lacking.

5. Claim Rejections – 35 U.S.C. §102(b)

Applicants have amended claim 1 to include the limitations of claim 3 and canceled claim 3, in order to traverse the rejections of claims 1, 2, 9 and 10. However, the Office has

rejected claims 1, 2, 9 and 10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,769598 to Krieg et al. If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more, the applicant is entitled to the grant of the patent. See *In re Oetiker*, 977 F. 2d 1443 (Fed. Cir. 1992). Under 35 U.S.C. § 102, anticipation requires that there is no difference between the claimed invention and reference disclosure, as viewed by a person of ordinary skill in the field of the invention. See *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565. Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. In deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference. See *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452.

Regarding the rejection of Applicants' claim 1, there is no disclosure in the Krieg reference of a collapsible excitation coil comprising a plurality of electrically interconnected collapsible excitation coil segments. The magnetizing coil 26 described in the Krieg reference is attached to a yoke 24 connecting measuring heads 23, 24 to form an electromagnet. "The electromagnets are each movably suspended on parallelogram links 27, 28 and are pressed outward against the inner wall of the pipe by springs 29, 30 in order to keep the air-gap leakage losses low" (column 3, lines 35-38). There is no disclosure of a collapsible excitation coil in the Krieg reference. Furthermore, a careful study of Figures 2 and 6 of the Krieg reference illustrate pole shoes 36, 37 along with their associated magnet coils 43, 44 mounted firmly to an annular support 45. This fixed mechanical structure prohibits the Krieg invention from traversing

internal restrictions in a pipeline, as claimed by Applicants. There is no disclosure of the limitations of Applicants' claim 1 in the Krieg reference.

Regarding the rejection of Applicants' claim 2, there is no disclosure in the Krieg reference of the use of remote-field eddy-current sensing technology to detect defects in pipeline walls utilizing a collapsible excitation coil and collapsible sensor array.

Regarding the rejection of Applicants' claim 9, there is no disclosure in the Krieg reference of a maximum diameter of a fully collapsed excitation coil, a fully collapsed sensor array, and an inspection pig structure being less than a minimum internal diameter of the pipeline having internal restrictions for enabling the system to traverse internal restrictions in the pipeline.

Furthermore, since independent claim 1 has been shown above to be not anticipated by the Krieg reference, all dependent claims depending on claim 1 are also not anticipated by the Krieg reference.

Since the Office has failed to establish a *prima facie* case for anticipation of Applicants' independent claims 1, 2, 9 and 10, Applicants request withdrawal of the rejections and objections of these claims and allowance of the application.

Summary

Applicants have made a diligent effort to distinguish the present invention over the referenced art and to place the claims in condition for allowance. Applicants believe that the rejected claims, as amended, define over the reference cited in the Office Action of March 24, 2006. The amendments are fully supported by the specification as filed.

However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Douglas D. Russell, Applicants' Attorney at 512-338-4601, so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited. Reconsideration and further examination is respectfully requested.

Respectfully Submitted,

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Date

/Douglas D. Russell/

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